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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/055,000	01/25/2002	Kunihiro Tanaka	100341-00019	7670

4372 7590 12/01/2004

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EXAMINER

LEE, PING

ART UNIT	PAPER NUMBER
2644	

DATE MAILED: 12/01/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/055,000

Applicant(s)

TANAKA, KUNIHIO

Examiner

Ping Lee

Art Unit

2644

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 30 June 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-8 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1, 2 and 7 is/are rejected.
- 7) ☐ Claim(s) 3-6, 8 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. Examiner proposed to put this case in condition for allowance by rewriting the objected dependent claims into independent forms. However, applicant declined.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claim 7 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 7 recites the limitation "said first plug terminal" in lines 2-3. There is insufficient antecedent basis for this limitation in the claim.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 1 and 2 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sawa et al (US 5,054,115).

Regarding claim 1, Sawa et al (hereafter Sawa) discloses, in combination of Figs. 6-8 and col. 8, lines 3-19, an RF transmitter (6) capable of being attached to first

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microphone (unit 7 has a microphone transducer 75), the first microphone (7) having a first connector (83 as shown in Fig. 8) capable of supplying power and a second connector (84 or 85 in Fig. 8) for outputting an audio signal, the transmitter (6) comprising a modulation means (606) which receives the electric power (col. 4, lines 45-47; the embodiment as shown in Fig. 6 is a modification of Fig. 2, the power is transmitted from the microphone 7 through cable 8 connector 83 to transmitter 6) and modulates the audio signal inputted from the second connecting connector (col. 6, lines 23-27; the embodiment as shown in Fig. 6 is a modification of Fig. 2, the audio signal is transmitted from the microphone 7 through cable 8 connector 84 or 85 to transmitter 6); and transmitting means (610) which receives the electric power and transmits the audio signal modulated by the modulation means (606) (col. 6, lines 27-30) to an RF receiver (although not shown, it is inherently included remotely from transmitter 6).

Sawa teaches that the cable is inserted to the transmitter (6) instead of the plug of the transmitter (6) inserted into the jack on the microphone. It is also appeared that one end of the cable is fixed at the microphone. However, using a removable cable having plugs on both ends (connecting to microphone and transmitter respectively) would make a better appearance in the car when the microphone (7) is not in use. Sawa teaches a 6-core cable providing all the connections between the transmitter (6) and the first microphone (7), but fails to show separate plugs for receiving power and audio signal. By using the 6-core cable, Sawa's transmitter has only one electrical connecting unit (the unit at the end of cable 8 touching microphone 7) instead of two as claimed. However, one skilled in the art would have expected that using more than one

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plug for separately providing power connection and audio signal connection would provide similar result. Using two separate cables (one for power and one for audio signal) would allow the user to easily detect the malfunction in a particular line and replacing that single cable; whereas in the same situation, the 6-core cable should be replaced regardless the particular signal line. Thus, it would have been obvious to one of ordinary skill in the art to modify Sawa's transmitter, microphone and 6-core cable by having two removable plugs for transmitting power and audio signal in separate paths in order to easily detect the malfunction between the signal paths, providing a lower cost replacement of the cable and better appearance in the car when the microphone (7) is not in use.

Regarding claim 2, although not explicitly shown, frequency modulation is inherently being used.

Allowable Subject Matter

6. Claims 3-6 and 8 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

7. Claim 7 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, second paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

Response to Arguments

8. Applicant's arguments filed 6/30/04 have been fully considered but they are not persuasive.

Applicant argued that microphone 75 fails to output electric power to either additional unit 7 or to the portable radio device 6. Consequently, microphone 75 cannot teach the first and second jacks.

The claimed microphone reads on element 7 of Sawa. Microphone 7 outputs audio signal (through 84 or 85) and power (through 83). The difference involving the first and second jacks is explained above. In summary, it is better to have two plugs for separately providing power and audio signal in order to save cost for cable replacement and give a better appearance when the microphone is not in use.

Conclusion

9. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

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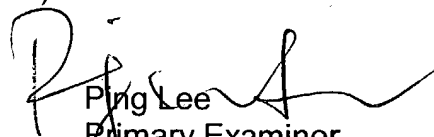
the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ping Lee whose telephone number is 703-305-4865.

The examiner can normally be reached on Monday and Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Forester W Isen can be reached on 703-305-4386. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


Ping Lee
Primary Examiner
Art Unit 2644

pwl